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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Salem District Office

1717 Fabry Road S.E.

Salem, Oregon 97306

5410 (085)

Alsea Falls Bicycle/Pedestrian Trail Construction and Foot Bridge Installation
EA No. OR080-01-01

The Bureau of Land Management, Marys Peak Resource Area, invites you to review the attached Alsea Falls Bicycle/Pedestrian Trail Construction and Foot Bridge Installation Environmental Assessment and Finding of No Significant Impact. This document describes the issues and analyzes the probable impacts to resources from the proposed project.

The proposed project is located in Township 14 South, Range 7 West, Sections 25, 34, 35 and 36 W.M. in the South Fork Alsea River Watershed. Bicycle/pedestrian trail construction would occur on approximately 3.5 miles of Matrix, Late Successional Reserve and Riparian Reserve land use allocations using hand and power tools. Three foot bridges would be installed to connect the proposed and existing bike/pedestrian trails.

We are interested in hearing from you and ask that you provide us with your comments by July 5, 2001. Please respond by then so a final decision can be made on the action. Comments specific to the alternatives and assessment of potential environmental effects would be the most helpful.

If you have questions about the environmental assessment, please call Gary Humbard at (503) 315-5981. Please send your written comments to Field Manager Marys Peak Resource Area, Salem District, Bureau of Land Management, 1717 Fabry Road S.E., Salem, Oregon, 97306.

Sincerely,

Acting Field Manager

Marys Peak Resource Area

* Note - Comments, including names and addresses of respondents, will be available for public review at the same time as the EA during regular business hours (7:30 a.m. to 4:00 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations of businesses, will be made available for inspection in their entirety.

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SALEM DISTRICT OFFICE
MARYS PEAK RESOURCE AREA**

**ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT
FOR
ALSEA FALLS BIKE/PEDESTRIAN TRAIL CONSTRUCTION AND FOOT BRIDGE
INSTALLATION PROJECT**

EA NUMBER : OR-080-00-10

PREPARED BY: Interdisciplinary Team; Gary Humbard, Team Lead

AREA ENVIRONMENTAL COORDINATOR: Belle Smith

Summary: This document is an Environmental Assessment and Finding of No Significant Impact for the proposed Alsea Falls Bicycle/Pedestrian Trail Construction and Foot Bridge Installation. The project area is located in Township 14 South, Range 7 West, Sections 25, 34, 35 and 36 Willamette Meridian, Benton County. The land use allocations are Matrix (General Forest Management Area [GFMA]), Late Successional Reserve and Riparian Reserve.

Alternative 1, the proposed action, would involve the construction of approximately 3.5 miles of bicycle/pedestrian trail and the installation of three foot bridges. This action would utilize hand and power tools in the construction of the trails and the installation of bridges and the use of a large crane in the installation of the South Fork Alsea River foot bridge.

Alternative 2 is the No Action alternative.

The environmental analysis focuses on the following issues identified through scoping and by an interdisciplinary team of BLM resource specialists:

Vegetation: Effects on native vegetation and special status/SEIS special attention species and habitats and noxious weeds.

Soils/Fuels: Effects on soil erosion. Effects on fuel loading and fire risk.

Water/Riparian: Effects on stream flow, channel conditions, water quality and aquatic conservation strategy objectives.

Wildlife: Effects on special status, special attention and other wildlife species and their habitats.

Fisheries: Effects on fisheries and their habitats.

Recreation: Effects on existing recreation resources in the area.

For further information, contact Gary Humbard (503-315-5981) or Doug Maxwell (503-315-5990), 1717 Fabry Rd. S.E., Salem, Oregon, 97306. Comments on this environmental assessment are due June 30, 2001.

FINDING OF NO SIGNIFICANT IMPACT

Introduction

The Bureau of Land Management (BLM), Marys Peak Resource Area has analyzed the potential effects of bicycle/pedestrian trail construction and foot bridge installation project in the upper drainage (T. 14 S., R. 7 W., Secs. 25, 34, 35 and 36 W.M.) of the South Fork Alsea River Watershed, Benton County, Oregon. The action described in this environmental assessment (EA) is proposed to develop a system of bicycle/pedestrian trails and foot bridges within the immediate vicinity of the Alsea Falls Recreation Area. The action would continue to provide nonmotorized recreation opportunities (hiking, biking, etc.) and create additional opportunities where consistent with other management objectives as identified in the *Salem District Record of Decision and Resource Management Plan* (the RMP; see pp. 41). The purpose of the proposed action would meet the demands for non-motorized recreational opportunities as identified in the *South Fork Alsea Watershed Analysis* (p. 102, October 1995). The project would designate some existing roads to trail conversions by restricting motorized access to these roads through the use of locked gates. All applicable direction in the Northwest Forest Plan is incorporated in the RMP. The EA is attached to and incorporated by reference in this Finding of No Significant Impact (FONSI) determination.

This FONSI and the EA are being made available for public review prior to making a decision on the action. The public notice of availability for review will be published in local newspapers of general circulation and through notification of interested individuals, organizations, and state and federal agencies. They will also be available for review on the internet at this address: <http://www.or.blm.gov/salem/planning>.

Finding Rationale

For the alternatives analyzed, significant impacts on the quality of the human environment would not occur based on the following criteria:

1) The alternatives are in conformance with the following documents which describe the objectives, land use allocations, and management actions/direction for BLM-administered lands in the Marys Peak Resource Area:

- *Record of Decision and Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (S&M ROD, January 2001).

- *Final Supplemental Environmental Impact Statement For Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (S&M FSEIS, November 2000).

- *Salem District Record of Decision and Resource Management Plan* (RMP, May, 1995).

- *Salem District Proposed Resource Management Plan/Final Environmental Impact Statement*

(PRMP/FEIS, September, 1994).

- *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (ROD, April 1994) and the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late Successional Forest Related Species Within the Range of the Northern Spotted Owl* (SEIS, February 1994).

- *Late-Successional Reserve Assessment, Oregon Coast Province- Southern Portion* (RO267, RO268), version 1.3 June 1997 (LSRA; USDA FS and USDI BLM 1997)

2) The alternatives are consistent with other federal agency and State of Oregon land use plans and with the Benton County land use plan and zoning ordinances. Any permits associated with the implementation of this project would be obtained, and all requirements would be met.

3) No wild and scenic rivers, prime or unique farmlands occur within the proposed trail development and bridge installation areas.

4) No known cultural or paleontological resources occur in the project area. A post-harvest survey would be done upon completion of the project according to *Protocol for Managing Cultural Resources on Lands Administered by the BLM in Oregon*; Appendix D dated August 5, 1998.

5) No hazardous materials or solid waste were observed in the project area nor would they be created by the proposed action. Any chemicals or fuel used on the site would be handled using best management practices (RMP, Appendix C).

6) Conformance of the alternatives with the Aquatic Conservation Strategy (ACS) components listed in the RMP (pp. 5 and 6) are displayed in the following table:

RELATIONSHIP OF ALTERNATIVES TO RELEVANT MANAGEMENT DIRECTION

Management Direction	Relationship of This Action
Interim Riparian Reserves	Alt. 1 (Proposed Action): Bike/pedestrian trail construction and foot bridge installation would occur within Riparian Reserves. Management actions/direction for Riparian Reserve include design new recreation facilities, so as not to prevent meeting current or future Aquatic Conservation Strategy objectives (RMP p.12) Alt. 2: Riparian Reserves would remain undisturbed.
Key Watersheds	The proposed project area is not in a Key Watershed.
Watershed Analysis	The first iteration of the <i>South Fork Alsea Watershed Analysis</i> was completed October 1995.

7) The sale area does not qualify for potential wilderness nor has it been nominated as an area of critical environmental concern.

8) Project design features would assure that potential impacts to water quality from this project would be in compliance with the State of Oregon's In-stream Water Quality Standards and thus the Clean Water Act.

9) In accordance with the RMP (see pp. 21-22), the amount of late-successional forest (i.e., 80 years and older) on federal lands was determined for the Upper Alsea Watershed. The 80+ forest age classes occur on approximately 32 percent of the federal lands in the Upper Alsea. This exceeds the RMP standard of 15 percent.

10) The proposed action is within the coastal zone as defined by the Oregon Coastal Management Program. This proposal is consistent with the objectives of the program and the state planning goals which form the foundation for compliance with the requirements of the Coastal Zone Act. Management actions/direction found in the RMP were determined to be consistent with the Oregon Coastal Management Program.

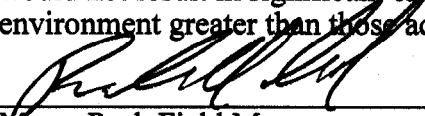
11) To comply with Section 7 of the Endangered Species Act (ESA), the project was submitted for consultation with the United States Fish and Wildlife Service (USFWS) as part of the *Programmatic Biological Assessment of Fiscal Year 2001 Projects in the North Coast Province which might disturb Bald Eagles, Northern Spotted Owls, or Marbled Murrelets* (January 2, 2001). A final Biological Opinion is pending on this consultation. This action would not be implemented until the Biological Opinion is received from the Service, or the timing of project activities at trail segments #7, #8, and #9 has been changed to occur outside the critical breeding period (April 1 to August 5), in any given year. All applicable terms and conditions from the anticipated Biological Opinion would be incorporated into the project design features, unless the timing of project activities is changed to negate the need for such mitigation.

12) Consultation with the National Marine Fisheries Service (NMFS) for Oregon Coast Coho Salmon, listed as 'threatened' under the Endangered Species Act, would be conducted under the *Programmatic Biological Assessment for On-going USDA Forest Service and USDI Bureau of Land Management Activities Affecting Oregon Coast Coho Salmon within the Oregon Coast Range Province, Oregon* (1998). This project would incorporate the project design criteria for trail maintenance and construction established in the Programmatic Biological Opinion dated June 1999 and extended in March 2000.

The proposed action is local in nature, and potential adverse impacts would be short-term. Impacts were determined based on observation, and professional training and experience of the interdisciplinary team of BLM natural resource specialists. Determining such environmental effects reduces the uncertainties to a level which does not involve unique risks. The design features identified in the EA would assure that no significant site-specific or cumulative impacts would occur to the human environment other than those already addressed in the EIS.

Finding of No Significant Impact Determination

Based on the analysis of information in the attached EA, my determination is that a new EIS or supplement to the existing EIS are unnecessary and will not be prepared., The proposed action would not result in significant environmental impacts the quality of the human environment greater than those addressed in the existing EIS.



Marys Peak Field Manager

05/30/01
Date

Comments regarding this environmental assessment should be received by the Bureau of Land Management, Marys Peak Resource Area, by July 5, 2001.

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ENVIRONMENTAL ASSESSMENT

I. PURPOSE AND NEED

A. Introduction

The Marys Peak Resource Area of the Bureau of Land Management (BLM) is proposing to construct approximately 3.5 miles of bicycle/pedestrian trails and install 3 foot bridges in Township 14 South, Range 7 West, Sections 25, 34, 35 and 36, Willamette Meridian, Benton County, Oregon. The proposed trail construction and foot bridge installation area is located approximately seven air miles southwest of Alpine, Oregon.

The purpose of the proposed action would meet the demands for non-motorized recreational opportunities as identified in the *South Fork Alsea Watershed Analysis* (p. 102, October 1995). The project would designate some existing roads to trail conversions by restricting motorized access to these roads through the use of locked gates. The project is intended to provide a wide range of dispersed recreation opportunities that contribute to meeting projected recreation as identified by the *Salem District Record of Decision and Resource Management Plan* (hereafter referred to as the *RMP*; see p. 12). All applicable direction in the Northwest Forest Plan is incorporated in the *RMP*.

This environmental assessment (EA) is tiered to the *Record of Decision and Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (S&M ROD, January 2001) *Final Supplemental Environmental Impact Statement For Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (S&M FSEIS, November 2000). The S&M ROD amends a portion of the Northwest Forest Plan by adopting new standards and guidelines for Survey and Manage, Protection Buffers and other mitigating measures.

This environmental assessment (EA) is also tiered to the *Salem District Record of Decision and Resource Management Plan (RMP, May, 1995) and the Salem District Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS, Sept., 1994)*. The *FEIS* analyzed broad scope issues and impacts to meet the need for forest habitat and forest products (p. 1). The *RMP* provides a comprehensive ecosystem management strategy for BLM managed lands in the Salem District in strict conformance with the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (April 1994).

The *RMP/ROD* was signed by the Oregon/Washington State Director of the Bureau of Land Management (BLM) on May 12, 1995. It is based on a comprehensive ecosystem management strategy for federal lands consisting of management objectives, land use allocations, and management actions/direction. This environmental assessment (EA) analyzes the proposed action, which would involve bicycle/pedestrian trail and foot bridge installation on Matrix, Late Successional Reserve and Riparian Reserve lands. Important ecological components within the project area would be retained.

The project would meet the management criteria as identified in Table 7 (p. 46) of the *LSRA* for trail construction. The lands affected by the project are identified as Landscape Cell 6 (Early

Seral/Buffer) which include the following goals: maintaining dispersal habitat and the use of low risk silvicultural treatments around Threatened and Endangered species locations.

This EA is a site-specific analysis of the proposed action and alternatives prepared under general management guidance provided in the *RMP*. The *RMP* is available for review in the Salem District Office. A general description of the project area may be found in this EA under Description of Affected Environment/Environmental Consequences. Additional information about the proposed project is available in the Alsea Falls Bicycle/ Pedestrian Trail Construction and Foot Bridge Installation Project EA file.

B. Scoping

Efforts to involve the public in planning for the proposed action were as follows:

- The general area was shown as Matrix (GFMA), Late Successional Reserve and Riparian Reserve in the Northwest Forest Plan and the *RMP*. These documents were widely circulated in the state of Oregon and elsewhere, and public review and comment were requested at each step of the planning process.
- A description of the proposal was included in the Salem Bureau of Land Management *Project Update* and mailed in September and December of 2000 to more than 900 individuals and organizations on the mailing list.
- A letter was mailed to interested parties as shown on the Alsea Falls Bicycle Trail Construction and Foot Bridge Installation mailing list on December 5, 2000 requesting initial public input. Two letters were received on December 22, 2000 and the issues were considered in developing the EA. The letters are in the NEPA project file. The letters comments and the BLM responses are addressed in the consultation section in the EA (pp. 23 to 26).
- A news release announcing availability of the EA for public review and comment was submitted to the *Corvallis Gazette-Times*. Letters with the same information were mailed to interested individuals.
- Copies of the EA are being mailed to individuals, interest groups and agencies.

C. Management Objectives by Land Use Allocation and Resource Program

As directed by the Northwest Forest Plan and the *RMP*, the primary management objectives for the project area are as follows:

Recreation (RMP p. 41)

1. Provide a wide range of developed and dispersed recreation opportunities that contribute to meeting projected recreation demand.
2. Enhance recreation opportunities provided by national back country byways.
3. Continue to provide non-motorized recreation opportunities and create opportunities where consistent with other management objectives.
4. Designate some existing roads to trail conversions by restricting motorized access to these roads through the use of locked gates.

Water and Soil Resources (RMP pp. 22-24)

1. Comply with State of Oregon water quality requirements to restore and maintain water quality and to protect recognized beneficial uses in watersheds.
2. Improve and/or maintain soil productivity.

Special Status and SEIS Special Attention Species (RMP pp. 29-31)

1. Protect, manage and/or conserve habitat for these species so as not elevate their status to any higher level of concern.

Riparian Reserves (RMP pp. 9-15)

1. Provide habitat for special status, SEIS special attention and other terrestrial species.
2. Meet Aquatic Conservation Strategy objectives.

Late-Successional Reserves (RMP pp. 15-18)

1. Late-Successional Reserves (LSR) are to be managed to protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for Late-Successional and old-growth forest-related species including the northern spotted owl and marbled murrelet.
2. Maintain a functional, interacting, late-successional and old-growth forest ecosystem.

Noxious Weeds (RMP p. 64)

1. Avoid introducing or spreading noxious weed infestations in any areas.

II. ALTERNATIVES, INCLUDING THE PROPOSED ACTION

A. INTRODUCTION

This section describes alternatives identified by the interdisciplinary (ID) team that helped develop the Alsea Falls Bicycle/Pedestrian Trail Construction and Foot Bridge Installation Project.

B. SUMMARY OF ALTERNATIVES

Alternative 1 (Proposed Action)

Under the proposed action, approximately 3.5 miles of bicycle/pedestrian trail would be constructed and three foot bridges would be installed in the proximity of the Alsea Falls Recreation Area.

Alternative 2 (No Action)

Construction of the bicycle/pedestrian trails and the installation of the foot bridges would be deferred.

C. ALTERNATIVE 1 (PROPOSED ACTION)

1. Scoping Issues

The following issues concerning the proposed action were identified through public scoping and by an ID team of BLM natural resource specialists representing various fields of science (see Section V, Interdisciplinary Team Members). Issues that were considered but eliminated from further analysis are documented in Appendix B, Environmental Elements Review Summary.

Vegetation: Effects on native vegetation and special status/SEIS special attention species and habitats and noxious weeds.

Soils/Fuels: Effects on soil erosion. Effects on fuel loading and fire risk.

Water/Riparian: Effects on stream flow, channel conditions, water quality and aquatic conservation strategy objectives.

Wildlife: Effects on special status, SEIS special attention and other wildlife species and their habitats.

Fisheries: Effects on fisheries and their habitats.

Recreation: Effects on existing recreation resources in the area.

D. PROJECT DESIGN FEATURES, MITIGATION MEASURES AND BEST MANAGEMENT PRACTICES

Project design features are operating procedures that would be included in the design and implementation of the proposed action alternative. They also include measures proposed to mitigate potential adverse environmental effects. The design features of this proposal are described below and mapped in Appendix A, Map 1. All numerical units are approximate.

General

- Approximately 3.5 miles of bicycle/pedestrian trail (3 to 4 feet wide mineral soil clearing limit, Appendix D) would be constructed.
- Three bicycle/pedestrian bridges would be installed. Two bridges would require approximately 20 feet span length each and 1 bridge across the South Fork Alsea River would require approximately 70 feet span length.
- Existing roads closed to motor vehicle use from January 1 to October 1 of each calendar year would be utilized as bicycle/pedestrian trails. Trail #'s 1 through 7 would be available for bicyclists and hikers, and Trail #'s 8 and 9 would be designated as exclusive hiking trails.
- Trail use by bicyclists would be prohibited on Trail #'s 1 through 7 during the general deer/elk hunting season.

- A staging area located on Swanson Superior Inc. land in Section 36, T. 14 S., R. 7 W. would provide a centralized parking area for bicyclists and or hikers. The undeveloped area would be used exclusively on a day use basis and would be intermittently patrolled by BLM personnel to reduce the likelihood of improper usage.

Vegetation

- Approximately 12 to 15 trees would be removed to the proposed foot bridge installation site on the South Fork Alsea River. The removal of the trees would provide access for the necessary equipment (crane) to install the approximate seventy-foot span bridge and to provide space for the installation of the bridge. The relatively small sized (average 10 inches DBH) trees to be removed would be utilized as public firewood within the immediate recreation facilities. Rock would be placed on the temporary access road to provide a sufficient surface for the equipment to operate on. This temporary access road would be utilized as the designated access trail to the bridge upon completion of installation.

Survey and Manage

Management of Survey and Manage Species found as a result of inventories would be accomplished in accordance with the *Record of Decision and Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (S&M ROD, January 2001) and the *Final Supplemental Environmental Impact Statement For Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (S&M FSEIS, November 2000).

This would include the following:

- Category F Species located in the project area (Table 1-1, S&M ROD, January, 2001)

Otidea onotica

All of the category F *Otidea onotica* species known sites would not receive any special protection from the bike trail construction operations. This species is common throughout most of the contract area. Manage known sites is not required for this category as stated on pages 13 and 14 of the S&M ROD.

- Category B Species located in the project area (Table 1-1, S&M ROD, January, 2001)

Ramaria stuntzii

Management of this species would be accomplished as known sites as stated on page 46 of the *Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (S&M ROD, January 2001) and Management Recommendations for Fungi Version 2.0 (Castellano & O'Dell, Sept. 1997). This would mean protecting these sites with a minimum 50-foot radius, no-trail construction buffer.

- In accordance with the RMP (pp. 28-33), appropriate measures would be taken to protect special status plant species or additional SEIS special attention plant species discovered prior to constructing the trails and bridges.

Water/Riparian

- Trails would be crowned or outsloped to quickly drain the trail surfaces onto stable portions of the forest.
- Trails with gradients exceeding 10 percent would have lead-offs or waterbars constructed at no less than a 50-foot spacing to reduce the risk of surface erosion and gully development.
- Approaches would be hardened at stream crossings with an appropriate type of gravel based material for trail maintenance.
- Lead off trail surface drainage to stable forest floor before it reaches stream crossings.
- Trail construction would be avoided on old road or tractor trail surfaces which are compacted and gullied.
- Bridge footings would be kept outside of the active channel and flood plain.
- Bridge decks would be kept high enough to easily pass flood water and associated debris and wood during large storm events.
- All standing and downed conifer species in the riparian zone and stream channels would be retained.
- An approximate 200 foot length of proposed trail would be located in a existing wet area (adjacent to campground) and would require the construction of a 3 to 4 feet wide boardwalk approximately 2 feet above the ground. All construction activities would be planned to minimize disturbance to beds and banks of existing wet area. The use of treated wood products would be designed to mitigate any contamination or leaching into the wet area.
- In the existing wet area, the trail would be designed to not require excavation. Pier blocks or piles would be used for foundation support in these areas.
- All construction activities would be planned to minimize contamination or leaching from treated wood products including: conducting most cutting and end treatment off site and the use of properly treated materials.

Soils

- Trails would be located climbing up slopes directly on ridges when possible to allow for rapid drainage of surface water away from the trail. When this is not possible, trails should have multiple grade breaks and dips to act as natural water bars. On all trails traversing up or down slopes with grades of 10 percent or more, provide water bars (either natural dips or constructed berms, buried logs, rocked berms, etc.) every 100 feet or closer as the grade increases. All water bars would cross the trail at an angle of 45 degrees or more.

- A layer of organic top soil, litter fall, light debris, bark dust, gravel, etc. would be maintained on the trail surface as much as possible, to reduce surface erosion. This is especially important on the portions of the trail that slope more than 10 percent.
- All State fire regulations would be complied with during construction, maintenance and use of the trail system.
- No smoking signs and other fire prevention information would be posted at trail heads.
- A small on-site cache of hand fire tools including: Personal Protective Equipment, shovels, pulaskis, hazel hoes, filled bladder bags and a chain saw with kit and fuel during fire season would be maintained. Park employees would be versed in basic fire fighting skills, be physically fit, equipped with handheld radios, and be capable of performing initial attack until back up forces arrive from Oregon Department of Forestry and/or BLM should a fire start on the trail system.

Wildlife/Fisheries

- Project construction and associated activities would be conducted in conformance with the applicable Biological Opinion (pending by 5/1/2001) concerning listed wildlife species. Apply all pertinent Terms and Conditions, to include:
 - ▶ On trail segments #7, #8, and #9, from April 1 through September 15, restrict daily use of power equipment or heavy machinery to the period beginning two hours after sunrise and ending two hours before sunset;
 - ▶ No blasting shall occur on any proposed trail segment during the time period January 1 through September 30, unless authorized upon completion of a reinitiated consultation;
 - ▶ The Resource Area Biologist would be notified if any federally listed wildlife species are found occupying stands adjacent to proposed trails;
 - ▶ If the Biological Opinion is not received in time to implement project work, then planned activities for trail segments #7, #8, and #9 must be mitigated by seasonally restricting activities that would employ the use of power tools or heavy equipment, so that they only occur prior to April 1st and after August 5th in any given year;
- Any down logs that are cut out of the trail path within the adjacent forest and any snags over 10" dbh that pose a safety risk and are felled, or are incidentally felled, would be retained within the project area.
- Follow Oregon Department of Fish and Wildlife guidelines for timing of in-stream work (July 1 to August 31).
- Do not remove down wood from site.

E. Alternative 2: No Action

Bicycle/pedestrian trail construction and foot bridge installation would not occur.

COMPARISON OF ENVIRONMENTAL CONSEQUENCES, BY ALTERNATIVE, FOR IDENTIFIED ISSUES.

Issue	Alternative 1	Alternative 2
Vegetation	There would be a minor loss of vegetation in the project area where the trails and temporary access road would be constructed.	Continuation of current conditions.
Soils	Residual compaction within RMP standards.	Continuation of current conditions.
Water/Riparian/Fish	Short-term, variable increase in stream turbidity may occur. See ACS Objectives (pp. 29 to 31) No adverse impacts to riparian vegetation. No adverse impacts to fish or fish habitat anticipated.	Continuation of current conditions. Continuation of current conditions. No effects to aquatic ecosystem.
Wildlife	This project would be of a disturbance nature only. No suitable habitat of older forest species would be altered.	Continuation of current habitat conditions and trends.
Recreation	Potential increase in human use. Use could include illegal activities such as vandalism and dumping.	Continuation of current habitat conditions and trends.

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT/ ENVIRONMENTAL CONSEQUENCES

This section describes the environmental features affected by bicycle/pedestrian trail construction and foot bridge installation and associated activities, and the environmental consequences which would result from implementing the alternatives. This information is summarized in Appendix B. Resource values are not described in this section if there are no anticipated site-specific impacts, site-specific impacts are considered negligible, or the cumulative impacts described in the existing RMP EIS are considered adequate.

In accordance with statutes, regulations, and executive policies, some resource values and uses must be reviewed in all environmental assessments. A list of these resources and the results of the review for the project area are presented in Appendix B.

A. GENERAL

The proposed project area is located in Sections 25, 26, 34, 35 and 36, T. 14 S., R. 7 W., W.M., in Benton County. The project area is in the South Fork Alsea River Watershed. Land use allocations for the project area are Matrix (General Forest Management Area [GFMA]), Late Successional Reserve and Riparian Reserve.

B. TOPOGRAPHY

The project area is situated primarily on a large flat with no distinctive aspect. Elevation varies from 840 to 1,300 feet. Slopes range from 0 to 35 percent, with small areas of up to 50 percent.

C. VEGETATION

Issue: Effects on native vegetation and special status/SEIS special attention species and habitats and noxious weeds.

Vegetation: Affected Environment

The proposed trails are located in a western hemlock climax forest. The proposed trails traverse through several aged class stands ranging from 30 years to 200 years-old. However, the majority of the trails are located in 50 to 60 year-old Douglas-fir stands. Douglas-fir is the dominant overstory in most of these stands. Red alder is common along the streams and on some of the old logging roads. The understory varies from open to fairly dense vine maple or hemlock reproduction. The shrub/forb layer is mostly dominated by salal or sword-fern with some open moss covered areas. The dominant moss in these areas is *Eurhynchium oregonum*. Many of the trails are located on "old" logging or "cat" roads which are now overgrown with vegetation. Trail #7 adjacent to the South Fork Alsea River skirts along the edge of a few Oregon Ash stands.

The plant association in the project area is the *Douglas-fir/red alder/salmonberry* grouping which occurs on the west slopes of the Oregon Coastal Mountains. More specifically, the area is comprised of the following plant associations.

The *w. hemlock/salal* plant association is common on upper slopes and ridges. The soils are moderately deep and well drained.

The *w. hemlock/sword-fern plant association* is common throughout the forest. It occurs on steep and lower slopes or, less often, on benches and alluvial flats.

The *w. hemlock/vine maple/sword-fern plant association* is most common on relatively warm, well-drained middle and lower slopes.

Survey and Manage

Vascular plants

Inventory of the project area for survey and manage vascular plant species was accomplished in accordance with the survey protocols as described on page 3 of survey *Protocols for survey and Manage strategy 2 Vascular Plants, version 2.0, December 1998*.

Special Status Species:

There are no “known sites” of any special status vascular plant species within the project area.

Special Attention Species:

There are no “known sites” of any special attention vascular plant species within the project area.

Lichens

Inventory of the project area for survey and manage lichens were accomplished in accordance with the survey protocols as described within the *Survey Protocols for Component 2 Lichens version 2.0, March 12, 1998*. Inventories for newly assigned lichen species into categories "A" and "C" of the S& M ROD that currently have no protocols were surveyed using the intuitive control method. However, pre-disturbance surveys for these species may not be required for up to two years as described on page 23 of the S&M ROD.

Special Status Species: There are no “known sites” of any special status lichen species within the project area nor were any found during subsequent surveys.

Special Attention Species: There are no “known sites” of any special attention lichen species within the project area.

Bryophytes

Inventory of the project area for survey and manage bryophytes was accomplished in accordance with the survey protocols as described in *Survey Protocols For Survey and Manage Component 2 Bryophytes, version 2.0, December 1997* and *Survey Protocols for Protection Buffer Bryophytes, version 2.0, December 1999*.

Special Status Species: There are no “known sites” of any special status bryophyte species within the project area nor were any found during subsequent surveys.

Special Attention Species: There are no “known sites” of any special attention bryophyte species within the project area.

Fungi

Fungi surveys were conducted in the project area on August 7, 21, 22, 28; October 11, 25; and November 1, 15 and 22, 2000 and were completed in accordance with *Plan Maintenance Documentation: Decision to Delay the Effective date for Surveying 7 “Survey and Manage” and Protection Buffer Species* (March 8, 2000) .

Special Status Species: There are no “known sites” of any special status fungus species within the project area.

Special Attention Species: The following special attention species were found during surveys, *Otidea onotica* a category F species and *Ramaria stuntzii*. a category B species was found in the project area.

Noxious Weeds: The following noxious weeds are known from within or adjacent to the project area, Tansy ragwort (*Senecio jacobaea*), Bull and Canadian thistles (*Cirsium vulgare* and *C. arvense*), St. Johnswort (*Hypericum perforatum*) and Scotch broom (*Cytisus scoparius*). These noxious weeds are established in low numbers along the existing road ways.

Vegetation: Environmental Consequences

Alternative 1 (Proposed Action)

The construction of hiking and biking trails approximately 3.5 miles in length and 3 feet in width (1.25 acres) throughout the 7000 acre upper South Fork Alsea Watershed would be minimal. Any species located within the actual trail or path would be destroyed. The canopy and understory would remain intact which would keep the microclimate disturbances to a minimum.

Survey and Manage

Vascular plants, Lichens, Bryophytes

Special Status Species and Special Attention Species:

The proposed action would not affect any special status or special attention vascular plant, lichen or bryophyte species since none were found in the project area.

Fungi

Special Attention Species:

All of the known sites of category B *Ramaria stuntzii* would be withdrawn from any type of ground disturbance and would be protected. No trail construction would occur within these reserved areas.

All of the category F *Otidea onotica* species known sites would not receive any special protection from trail construction. This species is common throughout most of the contract area.

Noxious Weeds

Noxious weeds generally invade areas of disturbed soil. It is anticipated that a few species of noxious weeds (*Senecio jacobaea* [Tansy ragwort], *Cirsium arvense* [Canadian thistle] and *Hypericum perforatum* [St. Johnswort]) may increase following the completion of the project. These species generally decline in the years (1-5) following completion of a project as they become out-competed by native vegetation. However, some populations persist, mainly adjacent to maintained roads. These species are category III noxious weeds and are well established and widespread throughout the Mary's Peak Resource Area and the Salem District. Eradication is not practical using any proposed treatment methods. Adverse effects from noxious weeds are not anticipated.

Alternative 2 (No Action)

All special attention species would be protected. Adverse effects from noxious weeds are not anticipated. The risk rating for the long-term establishment of noxious weed species and consequences of adverse effects on this project area is low.

D. SOILS/FUELS

Issue: Effects on soil erosion. Effects on fuel loading and fire risk.

Soils/Fuels: Affected Environment

Soils

A variety of similar, highly productive soils prevail in the area of the proposed trail system. There are alluvial silts and sands in the areas of close proximity to the stream flood plains and terraces. The upland areas have a variety of predominantly clay loam and gravelly loam textured soils. Representative soil series are: Bohannon gravelly loam, Blachly clay loam, Bohannon-Slickrock gravelly loam, Klickitat gravelly clay loam and Marty silty clay loam.

These soils are well drained with the exception of a few marshy areas adjacent to the stream across from Alsea Falls campground in SW ¼ of Section 25.

With the exception of the sandy alluvial soil, all of these soils have a significant fine particle (silt and clay) component.

Fuels

The proposed trail system passes through a range of fuel types from young Douglas-fir plantations to mature timber stands with remnant old growth trees. There are scattered old down logs from logging since the 1940's and scattered blown down trees. The larger fuels are in all stages of decay. Some of the stands have been or will be commercially thinned. Fuels presently on the sites are typical for the respective types; there are no unusual or extreme high risk fuel types. Fuel model for most of the stands is a model 8 - timber litter. The recently thinned stands are a combination of Model 8 and model 11 - light logging slash. The estimated total average dead fuel loading existing on site range from 10 to 25 tons/ acre.

Soils/Fuels: Environmental Consequences

Alternative 1 (Proposed Action)

Soils

Under this alternative, the extent of any compacted soil would be restricted to the 3 foot wide trail area. Affects on site productivity would be unmeasurable or negligible. Soil erosion can be kept to very low acceptable levels and prevented from reaching streams if project design features are followed.

Fuels

Fire risk can be mitigated in large part by following the suggested design features and that most mountain bikers and hikers do not smoke and no camp fires would be allowed anywhere along the trail system.

Alternative 2 (No Action)

Natural processes would be allowed to continue.

E. WATER/RIPARIAN

Issue: Effects on stream flow, channel conditions, water quality and aquatic conservation strategy objectives.

Water/Riparian: Affected Environment

Project area climate and hydrology

The project area is located in the Oregon coast range at elevations between 840 to 1,300 feet. This elevation range is rainfall dominate and not normally subject to rain on snow events (ROS). ROS events have the potential to increase peak flows during winter or spring storms. This area receives approximately 50-60 inches of rain annually and has a mean 2-year precipitation event of 1.8 to 2.0 inches in a 6-hour period (N.O.A.A. Precipitation-Frequency Atlas for Oregon, Volume X).

The primary stream draining the project area is the South Fork Alsea River. The project area is contained in the upper South Fork Alsea watershed which is approximately 9,500 acres or 14.8 sq-miles in drainage area. Several South Fork Alsea tributaries, including Coleman Creek, Williams Creek, and Fall Creek drain the area.

Project area stream channels

The upper South Fork Alsea main channel (from Alsea Falls to the confluence with Williams Creek) is primarily a Rosgen F stream type: less than 1 percent gradient, with high entrenchment and width/depth ratios and low sinuosity (Rosgen, 1996). It appears to have poor bank stability and moderate to high levels of bank erosion in portions, particularly below the confluence with Williams Creek. Upstream from Williams Creek, channel stability in the main channel increases and bank erosion decreases. The channel bed is composed primarily of small gravels, sand and silts on top of sandstone bedrock. Adjacent banks are primarily alluvial and consist of sand, silt and gravels.

There are two main tributary channels in the project area: Fall Creek and an unnamed third order channel that enters the main South Fork Alsea in Section 36 just upstream from Coleman Creek. Fall Creek at the intersection with the proposed trail/foot-bridge is a Rosgen B3 channel type: moderately incised, 2-4 percent gradient, with gravel/cobble substrate. It is fairly stable and resistant to disturbance and appears to be properly functioning. It also appears to have a fairly large sediment supply (typical for tributaries in this area) and low quantities of large wood, also typical for these streams in a heavily managed forest landscape.

The unnamed tributary in Section 36 is a "G4" channel type: low gradient (less than 1 percent), high meander, deeply entrenched in alluvial materials. The channel at the proposed crossing is unstable and appears to be functional at risk with several head cuts and substantially eroded banks. Several hundred yards upstream from the crossing this channel is stable and typifies Rosgen "E" types: low gradient, high meander, low width/depth ratio, slightly entrenched. It appears that down cutting in the South Fork Alsea has initiated an unstable grade and head cutting in this highly sensitive tributary channel.

Project area water quality and beneficial uses

Fine Sediment and turbidity

Little quantitative data concerning suspended sediment transport and/or turbidity is currently available for this watershed. The data that has been collected implies that fine sediment (less than 2mm in diameter) levels in stream substrates and those transported as suspended sediment during winter storm events are within the range of natural variability for this watershed. It should be noted that the upper South Fork Alsea watershed has large stretches of low gradient, alluvial channel with active beaver populations. These conditions are conducive to the capture, storage and transport, particularly during storm events, of high concentrations of fine sediment.

Three sets of substrate samples in the upper South Fork Alsea main channel were sampled by bulk and sieved. Material less than 2mm (sand and silts) in subsurface samples was 20 percent, 20 percent and 24 percent respectively. In one study of stream substrates in 21 undisturbed Oregon coastal streams, fines averaged 19.4 percent and ranged from 10.6 to 29.4 percent (Adams and Beschta, 1980), indicating that the South Fork Alsea substrate samples are near the mean of samples from undisturbed watersheds.

Occasional turbidity grab samples have been collected in the upper watershed since 1995 during winter storm events. Although a reading of 45 nephelometric turbidity units (NTUs) on the mainstem and 100 NTUs on Coleman Creek was collected during the 1996 flood, these high

levels of turbidity are short-lived. The Upper South Fork Alsea turbidity values ranged from a minimum of 1 NTU to a maximum of 100 NTU with an average median value of 4 NTU and standard deviation of 13 NTU. These levels are well below the maximum NTU levels found on one study of Mill Creek in the Alsea river basin (Beschta, 1979) and the median value of 4 NTU is well below the 30 NTU standard Oregon DEQ set for the Umatilla sub-basin Total Maximum Daily Load assessment. (ODEQ, 1999).

Although data indicates that fine sediment supply and transport are within the range of natural variability in this watershed, sampling to date has been infrequent. Currently there is not enough sediment data in the watershed to provide a detailed representation of water quality conditions. In addition, other observations of channel and hillslope conditions (discussed earlier in this report) suggest that fine sediment supply and transport in the watershed may be high. In response to these concerns, physical and biological monitoring in the upper South Fork Alsea channel is ongoing.

Stream Temperature

Continuous stream temperature measurements were collected at several sites on the upper South Fork Alsea main channel as well as on lower Fall Creek and the unnamed tributary in the summers of 1999 and 2000.

In the South Fork Alsea main channel stream temperatures were above the state standard of 17.8° C at all of monitoring sites for several days during both years. However, temperatures showed a cooling trend between the site highest in the watershed at river mile 15 and the lower site near Fall Creek in the Alsea Falls recreation area. Evidently, tributary channels such as Fall Creek, which maintained summer stream temperatures well below the state standard in both years, are cooling the main stem of the South Fork Alsea in the project area.

Due to the simplified and widened main channel on the upper South Fork Alsea, riparian vegetation is less effective at providing shade. In addition, portions of the upper main channel flow through open meadow settings and are exposed to direct sunlight for much of the day during summer. Stream temperature may also be above standards in response to extensive beaver dam pools scattered throughout the main stem. Reductions in stream temperatures would probably not occur on the main channel without improvements in channel morphology (i.e., deeper, narrower channel with increased numbers of wood jams, wood cover and deep pools) in some reaches and recovery of older forest characteristics (i.e., multiple canopies, mixed deciduous and conifer) along the banks and adjacent river terraces. However, in response to the high concentration of low gradient, open channel reaches in this watershed, it is likely that ambient summer stream temperatures have always been higher relative to other coast range streams.

Based on field and aerial photo observation, current stream side vegetation on tributary channels in this area is likely adequate to shade surface waters during summer base flow. These observations are corroborated by the summer stream temperature data collected in 1999-2000 (they are well within the range of natural variability for mid-coast Oregon). Continued implementation of the Northwest Forest Plan will likely maintain the current stream temperature regime on public lands in the watershed (or possibly lead to further cooling along the main channel).

Water Quality

Oregon Department of Environmental Quality's (DEQ) *1998 303d List of Water Quality Limited Streams* is a compilation of streams which do not meet the state's water quality standards. Neither the South Fork Alsea or its tributaries are listed in the report. However, the Alsea River is listed as not meeting water quality standards for summer stream temperatures from the mouth to headwaters.

The DEQ has also published an assessment, the 319 Report, which identifies streams with potential non-point water pollution problems (*1988 Oregon Statewide Assessment of Nonpoint Sources of Water Pollution*). The upper South Fork Alsea and its tributaries were identified as either having no problem or lacking data (the report does not discriminate between no problem and no data). The lower South Fork Alsea (but not the upper) was identified as having possible "moderate sedimentation" problems. However, no description of the problem has been offered and no supporting sediment data has been located (i.e., the assessment was based on observation).

Additional water quality parameters (e.g., nutrients, dissolved oxygen, pesticide and herbicide residues, etc.) are unlikely to be affected by this proposal and were not reviewed for this analysis (U.S.E.P.A.,1991).

Beneficial uses of surface water from the project area are displayed in table 1. There are no known municipal or domestic water users in the project area. Irrigation and livestock watering occur in the Alsea valley, near the town of Alsea, approximately fourteen kilometers downstream from the project area. Additional beneficial uses of the stream-flow in the project area include resident fish, recreation, and esthetic values.

Table 4.

Beneficial uses associated with streams in the project area.

Stream (Watershed)	Project Action	Beneficial Use	Distance from Project Action	Information Source
South Fork Alsea	Trail and footbridge construction.	Anadromous fish	1 mile (below falls)	BLM
		Resident fish	Immediate	BLM
		Domestic use	greater than 10 mile	WRIS*
		Irrigation/live-stock watering	5 miles	WRIS*

* WRIS = *Water Rights Information System* of the Oregon Department of Water Resources

Water/Riparian: Environmental Consequences

Alternative 1, (Proposed Action)

Measurable effects to stream flow, channel morphology, water quality and wetland condition as a result of this proposed action are unlikely. This action is unlikely to alter the current condition

of the aquatic system either by affecting it's physical integrity, water quality, sediment regime or in-stream flows.

This proposal is unlikely to alter stream flow or peak flow events. Trail construction would not occur on steep, unstable slopes where the potential for mass wasting adjacent to stream reaches is high. Therefore, increases in sediment delivery to streams due to mass wasting are unlikely to result from this action. In addition, potential impacts resulting from trail construction and use would be mitigated and, with the implementation of BMPs, are unlikely to contribute measurable amounts of sediment to streams. The riparian canopy would be retained therefore maintaining riparian microclimate conditions and protecting streams from increases in temperature.

The implementation of the design features would protect the condition of the wetland located in Section 25. The non-toxic treated material would not impact the wetlands or riparian habitats. The design of the boardwalk would discourage people from leaving the trail. Trail construction would have little effect on flows or water quality to the wetland.

In conclusion, this proposal is unlikely to impede and/or prevent attainment of the stream flow and basin hydrology, channel function, or water quality objectives of the ACS (see Appendix C for a thorough analysis).

Alternative 2, (No Action)

No action would result in the continuation of current conditions and trends at this site as described in the Description of the Affected Resource section of this EA and in the *South Fork Alsea Watershed Analysis*.

F. WILDLIFE/FISHERIES

Issue: Effects on special status, special attention and other wildlife species and their habitats.
Effects on fisheries and their habitats.

Wildlife: Affected Environment

This proposed project area occurs in a variety of forested and non-forest habitats within the Upper Alsea 5th Field Watershed. The majority of proposed trail segments are routed through early and mid-seral conifer and hardwood stands. Trail segments #8 and 9 are routed through an older forest patch, and part of segment #7 skirts the edges of a small wet area and meadow habitat patches.

A great variety of wildlife species may use the habitats adjacent to the proposed trails. Many of these species utilize unique habitat types or are widespread generalists that are unlikely to be affected by this action. The current status and condition of several of these species was described within the watershed analysis. Only the following species groups are discussed concerning their affected environment and environmental consequences related to this proposed action:

- Federally listed wildlife species (species covered by Endangered Species Act)
- Survey and Manage wildlife species (mollusks)
- big-game species (bear, deer, and elk)
- other vulnerable species (riparian/wetland species, raptors)

Federally Listed Wildlife Species. No surveys for northern spotted owls were required for this project evaluation. However, extensive survey information is available for this species in the vicinity of the project area. The proposed trail segments lie within critical habitat that has been designated for spotted owls (CHU OR-48) and for marbled murrelets (OR-03-b). However, no constituent elements of critical habitat for either species would be affected by this action. There are no known active spotted owl sites within 1.5 miles of the proposed action. Use of the forest stands adjacent to the proposed trails is unlikely by resident owls; however, transient owls may disperse through some of these stands, particularly the older forest patches. There are no known murrelet sites within 1.0 miles of the proposed trails. Only the older forest patch surrounding trail segments #8 and #9 is likely to be used by murrelets. This older forest patch has not been surveyed for this species, and no surveys were required for this project evaluation. No known bald eagle sites exist adjacent to the proposed trails; the nearest site is several miles away.

Survey and Manage Wildlife Species. Forested stands adjacent to the proposed trails may provide habitat for red tree voles; however, no habitat (forest canopy) would be affected by this proposed action. This action does not require surveys for this species (per IM-OR-2000-037). Surveys for Survey and Manage (S&M) mollusk species were completed according to existing protocol (IM-OR-1998-097). No S&M mollusks were found. There are no known sites for S&M mollusks in close proximity to the proposed trail segments, and additional surveys are unlikely to find any of these rare species in the young forest stands surrounding the proposed trail segments.

Big Game Species. Evidence of use by black bear, deer, and elk have all been noted in the vicinity of almost all of the proposed trail segments. These species are well distributed throughout this watershed. These trail segments are mostly routed through young forest stands that provide hiding cover for these species, as well as denning sites for bears. The diversity of habitats adjacent to trail segment #7 (stream, wetlands, meadows, riparian hardwoods) provide a wider array of cover types (hiding, forage, thermal, water), that may be locally important for deer and elk. Evidence of deer and elk use along segment # 7 was moderately greater than along other proposed segments.

Other Vulnerable Species. Salem RMP directs consideration be given to wildlife species that may be affected by actions within Riparian Reserves and Special Habitats. Trail segments #6 and #7 are routed through Riparian Reserve with prominent riparian zone habitats and some special habitat features (meadow and wetland types). Amphibians and mollusks are species that may be vulnerable to ground disturbance and associated trail use. Mollusk species are more likely to be widely distributed with the Riparian Reserves, while some amphibians may be seasonally concentrated around breeding sites (ponds, puddles, slow streams). Adjacent to trail segment # 7 (within 100 meters), there are a few small and scattered wetlands types that are likely used as breeding sites for some amphibians. Other vulnerable species, such as forest raptors (sharp-shinned hawks, Cooper's hawks, and several owl species) may be nesting in proximity to trail segments where they may be vulnerable to human disturbance from increased trail use.

Fisheries: Affected Environment

All streams within the proposed project area, including the South Fork Alsea River are upstream of Alsea Falls, which is the upstream limit of anadromous fish distribution in the South Fork Alsea River basin. Most of the streams in the project area support populations of resident cutthroat trout, and have moderate gradients of 1 - 4 percent. These lower gradient valley streams contain typical small stream pool/riffle habitat with a dominant substrate of gravel.

Steelhead and sea-run cutthroat trout within the Oregon Coast Range Province are candidate species for which consultation with the NMFS and USFWS is not required. However, the habitat requirements of steelhead and cutthroat trout are similar to those of coho salmon, and generally, the effects on habitat of the projects described in this EA, both beneficial and negative, should be applicable to all three species.

Wildlife: Environmental Consequences

Alternative 1, (Proposed Action).

Direct and Indirect Effects.

The proposed construction and recreational use of trails would not appreciably change existing habitat types, or alter the development of future forest stand conditions. The direct and indirect changes anticipated to occur relate to the potential for trail construction activities and subsequent recreational use to disturb or alter existing patterns of habitat use by wildlife species.

Federally Listed Wildlife Species. Habitat for spotted owls and marbled murrelets would not be affected by this action. Nor would any of the constituent elements of Critical Habitat for these species be affected by this action. Increased human presence from trail use is not likely to result in disturbance to these species. However, trail construction activities on Trail #'s 7, 8, and 9 that involve the use of heavy equipment or power tools may potentially disturb marbled murrelets if such activity occurs during the critical nesting period (April 1 to August 5). For this reason this action is considered a "may affect, likely adverse affect" to this species. This action is considered to have "no effect" on spotted owls and bald eagles. To address the concerns for marbled murrelets, formal consultation with the U.S. Fish and Wildlife Service was initiated under the *Programmatic Biological Assessment of Fiscal Year 2001 Projects in the North Coast Province which might disturb Bald Eagles, Northern Spotted Owls, or Marbled Murrelets* (January 2, 2001). A final Biological Opinion is pending on this consultation. This action would not be implemented until the Biological Opinion is received from the Service, or the timing of project activities at trail segments #7, #8, and #9 has been changed to occur outside the critical breeding period (April 1 to August 5), in any given year. All applicable terms and conditions from the anticipated Biological Opinion would be incorporated into the project design features, unless the timing of project activities is changed to negate the need for such mitigation.

Big Game Species. Trail construction activities and the subsequent increased human presence in the area would likely alter the current patterns of habitat use by bear, deer and elk. Such impacts may be more pronounced along trail #7, since it provides a greater variety of habitats, and evidence of habitat use by these species was moderately higher along this segment. However, it is unlikely that such disturbance to these species would have a significant affect on local populations or would impede attainment or maintenance of state management objectives for these species within this management unit.

Other Vulnerable Species. Seasonal movements of amphibians from streams or wetlands to uplands could be a concern along trail #6 and #7 if high levels of bike use were to occur continuously throughout the dispersal and breeding periods (November through March). Since only moderate levels of trail use are anticipated to occur initially, and such use is likely to be highest when the Alsea Falls Campground is open (late May through September); it is unlikely

that amphibian populations would be appreciably affected by this proposed action. Other wildlife species that are vulnerable to ground disturbance (mollusks) or increased human presence (forest raptors) are not likely to be substantially affected by this proposed action, so as to contribute to their decline or elevate their status for concern for the following reasons:

- stream crossings and trail segments within riparian zone habitats would alter such a small amount of area that habitat availability for riparian associated species would not be appreciably diminished;
- existing corridors for movement through Riparian Reserves would be negligibly affected within this watershed;
- species vulnerable to increased human activities (forest raptors) may alter their patterns of habitat use, but such impacts are likely to be uncommon and very localized such that affects to local populations would be negligible.

Cumulative Effects.

Within the upper reaches of the South Fork Alsea Watershed, there are only two prominent recreation sites (Alsea Falls and McBee Park) offering hiking and biking trails off of existing roads. Collectively, these recreation sites provide less than five miles of hiking/biking trails. In addition, several miles of motorcycle trails (authorized and unauthorized) exist in the watershed mainly to the north of the recreation sites. Hunting, fishing, and seasonal collection of special forest products add additional human use in the watershed mostly as dispersed recreation. The proposed addition of 3.5 miles hiking/biking trails in this vicinity is not likely to result in significant cumulative disturbance effects to federally listed wildlife species, or other special attention and special status species within this watershed.

Alternative 2 (No Action).

This alternative would result in no change to the affected environment. The potential for minor impacts from disturbance and alteration to habitats as described in Alternative 1 would be avoided under this alternative.

Fisheries: Environmental Consequences

The proposed project is not expected to result in adverse impacts to fish or fish habitat. Habitat and channel conditions are expected to be maintained. Small amounts of sediment may be generated by trail and bridge construction, but would be short term (a year or less), and would not adversely affect fish populations or stream habitat. Water bars on the trails would prevent direct input of sediment to streams. Bridge footings would be designed and constructed in a manner that would not constrict streamflow.

Alternative 2, (No Action).

This alternative would result in no change to the affected environment.

G. RECREATION

Recreation: Effects on existing recreation resources in the area.

Recreation: Affected Environment

The project area is a forested setting with fairly flat topography. The adjacent Alsea Falls Recreation Area (BLM) provides overnight camping, picnicking, fishing, hiking and sightseeing. The area is also used by the public for mushroom gathering, off-highway vehicle use, target shooting, hunting, wildlife observation and nature study. The paved South Fork Alsea Backcountry Byway which accesses the project area connects the Willamette Valley to Highway 34, a major route for travelers to the Oregon Coast.

Concentration of users ranges from low to high depending on the season. Maximum use occurs on occasional summer weekends and holidays. Approximately 15,000 visitor days occur per year within the adjacent recreation sites. Isolation from the sights and sounds of humans exists, with the opportunity to interact with the natural environment.

Recreation: Environmental Consequences

Alternative 1, (Proposed Action)

Recreational opportunities would be expanded and the quality of recreation experiences enhanced with the additional trail construction and foot bridge installations. The Alsea Falls Recreation Area would continue to be managed as it is currently. The seasonal late May to early October operation of facilities would not change. Year round foot and bicycle access would continue to be allowed except trail use by bicyclists would be prohibited on Trail #'s 1 through 6 during the general deer/elk hunting season. .

The increase in public use could increase illegal activity such as vandalism, dumping and poaching. The simultaneous use by hikers/bicyclists on trail #'s 1-7 could result in conflicts between these user groups. Opportunities for solitude would be reduced. Higher numbers of visitors could increase the number of safety related incidents. Increased ranger patrol could decrease car theft, burglary, vandalism and other crimes.

Alternative 2, (No Action)

This alternative would result in no change in the type of recreation opportunities or experiences available at Alsea Falls Recreation Project Area.

IV. MONITORING

Monitoring would be accomplished through contract administration and in accordance with monitoring guidelines in Appendix J of the RMP.

V. CONSULTATION

A letter was mailed to interested parties as shown on the Alsea Falls Bicycle Trail Construction and Foot Bridge Installation mailing list on December 5, 2000 requesting initial public input. Two letters were received on December 22, 2000. The following summarizes the substantive comments and includes a response where appropriate:

Wildlife Species

The upper Alsea river drainage should be considered a sensitive area for a variety of wildlife species and additional recreation opportunities will increase human use and impact more wildlife habitats in an area fragmented by roads.

Impacts to wildlife and their habitats would not be adversely impacted during the construction phase by implementing the following design features: On trail segments #7, #8, and #9, from April 1 through September 15, restrict daily use of power equipment or heavy machinery to the period beginning two hours after sunrise and ending two hours before sunset; no blasting shall occur on any proposed trail segment during the time period January 1 through September 30, unless authorized upon completion of a reinitiated consultation; notify the Resource Area Biologist if any federally listed wildlife species are found occupying stands adjacent to proposed trails; if the Biological Opinion is not received in time to implement project work, then planned activities for trail segments #7, #8, and #9 must be mitigated by seasonally restricting activities that would employ the use of power tools or heavy equipment, so that they only occur prior to April 1st and after August 5th in any given year.

The RMP designated a significant portion of the Upper Alsea River drainage as Matrix (GFMA) land use allocation. The BLM manages the area as a multiple use area which includes activities in a wide variety of uses including recreation, wildlife management, timber production, water protection and fire management.

Following completion of trail construction and bridge installation, human use could increase in the project area. Increased human presence in the area would likely alter the current patterns of habitat use by bear, deer and elk. Such impacts may be more pronounced along trail #7, since it provides a greater variety of habitats, and evidence of habitat use by these species was moderately higher along this segment. However, it is unlikely that such disturbance to these species would have a significant affect on local populations or would impede attainment or maintenance of state management objectives for these species within this management unit. Species vulnerable to increased human activities (forest raptors) may alter their patterns of habitat use, but such impacts are likely to be uncommon and very localized such that affects to local populations would be negligible. Stream crossings and trail segments within riparian zone habitats would alter such a small amount of area that habitat availability for riparian associated species would not be appreciably diminished. Existing corridors for movement through Riparian Reserves would be negligibly affected within this watershed. Of the total 1.25 acres impacted by trail construction, approximately 0.1 acre of older forest habitat would be affected by this action.

Biker/Hiker/Hunter Conflict of Use

a) In some areas of dispersed recreation, trails are not easily shared between different user groups causing some groups to be become eliminated from these areas and thereby creating bitter feelings between the groups.

Camping, hunting, fishing, off-highway vehicle use and the collection of special forest products are the primary activities which occur in the areas of the proposed trail construction. To alleviate the likelihood of conflict of the different groups the following would be implemented: trail use by bicyclists would be prohibited on Trail #'s 1 through 6 during the general deer/elk hunting season; Trail #'s 1 through 7 would be available for bicyclists and hikers and Trail #'s 8 and 9 would be designated as exclusive hiking trails; all hunting would be prohibited on BLM land in Section 25 and the NE 1/4 Section 36, T. 14 S., R. 7 W. All trails would be closed to motorized vehicle use.

b) Biking trails should not be constructed in areas with good viewing opportunities as bikers tend not to stop.

The majority of the proposed biking/hiking trails do not provide good viewing opportunities as they traverse fairly dense forested areas. The areas which do provide viewing opportunities of older forests are adjacent to Trail #'s 8 and 9 which would be designated as exclusive hiking trails.

Road Closure and Bike Trail Use

a) Many existing roads could be closed and used as bike trails. This would reduce the amount of new trail construction required, thereby reducing the overall cost of construction and impact to wildlife habitats.

The BLM implemented a Transportation Management Plan for the Upper Alsea River drainage in 1995 following the completion of the South Fork Watershed Analysis. The Oregon Department of Fish and Wildlife provided input and agreed with the recommendations to close roads in the area under this plan. Presently there are no additional roads identified to be closed in this area in the near future since the remaining open roads are subject to reciprocal right-of-way requirements.

The majority of existing roads closed to motor vehicle use from January 1 to October 1 of each calendar year in the area would be utilized as bicycle/pedestrian trails. The proposed biking/hiking trails to be constructed would connect approximately 22 miles of a closed/open road system. The proposed trail construction utilized the system of closed roads as much as possible to create as remote and diverse of outdoor experience as possible. Of the total 1.25 acres impacted by trail construction, approximately 0.1 acre (8 percent) of older forest habitat would be affected by this action.

b) The proposed trail north of the South Fork Alsea River which would result in 5 bridge crossings and 1 wetland crossing could be avoided since there is an existing road available for bikers to the northwest which provides them with a different habitat experience.

The proposed trail north of the South Fork Alsea River (Trail #7 on project map) would connect the Alsea Falls Campground to a road system providing the link for a loop trail system. The proposed trail construction would require 1 bridge to be constructed, 1 culvert (12" diameter) to be installed, and approximately 200 feet length of boardwalk would be installed in a wet area. There are numerous closed roads in the area for bicyclists/hikers to utilize for recreation purposes. The proposed trail construction would provide bicyclists/hikers a different experience than afforded by utilizing existing roads.

Adverse Environmental Impacts caused by Bike Use

a) The impact of bikes on trails is more detrimental than hikers and would cause considerable damage to wetlands or soft areas. Bike use on roads are less likely to cause damage than on trails.

By implementing the proposed design features included in the EA, soil erosion would be kept to very low acceptable levels and prevented from reaching the streams. Bike use would not occur on steep (greater than 30 percent slopes) and is unlikely to alter the current condition of the aquatic system by affecting its physical integrity, water quality, sediment regime or in-stream flows.

b) Trails should be located outside riparian reserve as much as possible. Construction methodology should consider avoiding stream channel disturbance and water contamination, trail system drainage that minimizes erosion and sediment delivery and trail design that avoids removal of riparian vegetation and allows for channel meander. Design should avoid the use of riprap and culverts.

Trail #'s 1 through 5, 8 and 9 would be located predominately outside of Riparian Reserve and away from stream courses. Trail #'s 6 and 7 would be located within Riparian Reserve and would be routed away from riparian vegetation.

The following design features would minimize erosion and sediment delivery to streams: Crown or outslope trails to quickly drain the trail surfaces onto stable portions of the forest; trails with gradients exceeding 10 percent should have lead-offs or waterbars constructed at no less than a 50-foot spacing to reduce the risk of surface erosion and gully development; "harden" the trail approaches at stream crossings with an appropriate type of gravel based material for trail maintenance; lead off-trail surface drainage to stable forest floor before it reaches stream crossings; avoid trail construction on old road or tractor trail surfaces which are compacted and gullied; keep bridge footings outside of the active channel and flood plain; keep bridge decks high enough to easily pass flood water and associated debris and wood during large storm events; retain all standing and downed conifer species in the riparian zone and stream channels; locate trails that would be climbing up slopes directly on ridges when possible to allow for rapid drainage of surface water away from the trail. When this is not possible, trails should have multiple grade breaks and dips to act as natural water bars. On all trails traversing up or down slopes with grades of 10 percent or more, provide water bars (either natural dips or constructed berms, buried logs, rocked berms, etc.) every 100 feet or closer as the grade increases. All water bars should cross the trail at an angle of 45 degrees or more; maintain a layer of organic top soil, litter fall, light debris, bark dust, gravel, etc. on the trail surface as much as possible, to reduce surface erosion. This is especially important on the portions of the trail that slope more than 10 percent.

Approximately one, 12 inch diameter by 8 feet length culvert (Trail #7) would be installed on the project to allow for proper stream flow and protection. Portion of trail adjacent to stream crossing would be hardened with an appropriate type of gravel material.

Consultation with the NMFS for Oregon Coast Coho Salmon, listed as ‘threatened’ under the Endangered Species Act would be conducted under the *Programmatic Biological Assessment for On-going USDA Forest Service and USDI Bureau of Land Management Activities Affecting Oregon Coast Coho Salmon within the Oregon Coast Range Province, Oregon*.

To comply with Section 7 of the Endangered Species Act (ESA), the project was submitted for consultation with the USFWS as part of the *Programmatic Biological Assessment of Fiscal Year 2001 Projects in the North Coast Province which might disturb Bald Eagles, Northern Spotted Owls, or Marbled Murrelets*. A final Biological Opinion is pending on this consultation. This action would not be implemented until the Biological Opinion is received from the USFWS, or the timing of project activities at trail #'s 7, 8, and 9 has been changed to occur outside the critical breeding period (April 1 to August 5), in any given year. All applicable terms and conditions from the anticipated Biological Opinion would be incorporated into the project design features, unless the timing of project activities is changed to negate the need for such mitigation. All applicable Terms and Conditions of this BO have been incorporated as design features of this proposed project.

VI. INTERDISCIPLINARY TEAM MEMBERS

NAME	TITLE	DATE/INITIAL
Gary Humbard	Forester	5/14/01 GLH
Scott Hopkins	Wildlife Biologist	5/14/01 SHH
Tom Tomczyk	Soil Scientist/Fuels Specialist	5/14/01 TST
Ron Exeter	Botanist	may 15, 2001 RE
Tom Vanderhoof	Cultural Specialist	5/14/01 TMV
Dave Roberts	Fisheries Biologist	5/14/01 DAR
Patrick Hawe	Hydrologist	5/14/01 PH
Belle Smith	NEPA Coordinator	5-30-2001 BS
Randy Gould	Natural Resource Staff Administrator (management review)	RG 05/29/01

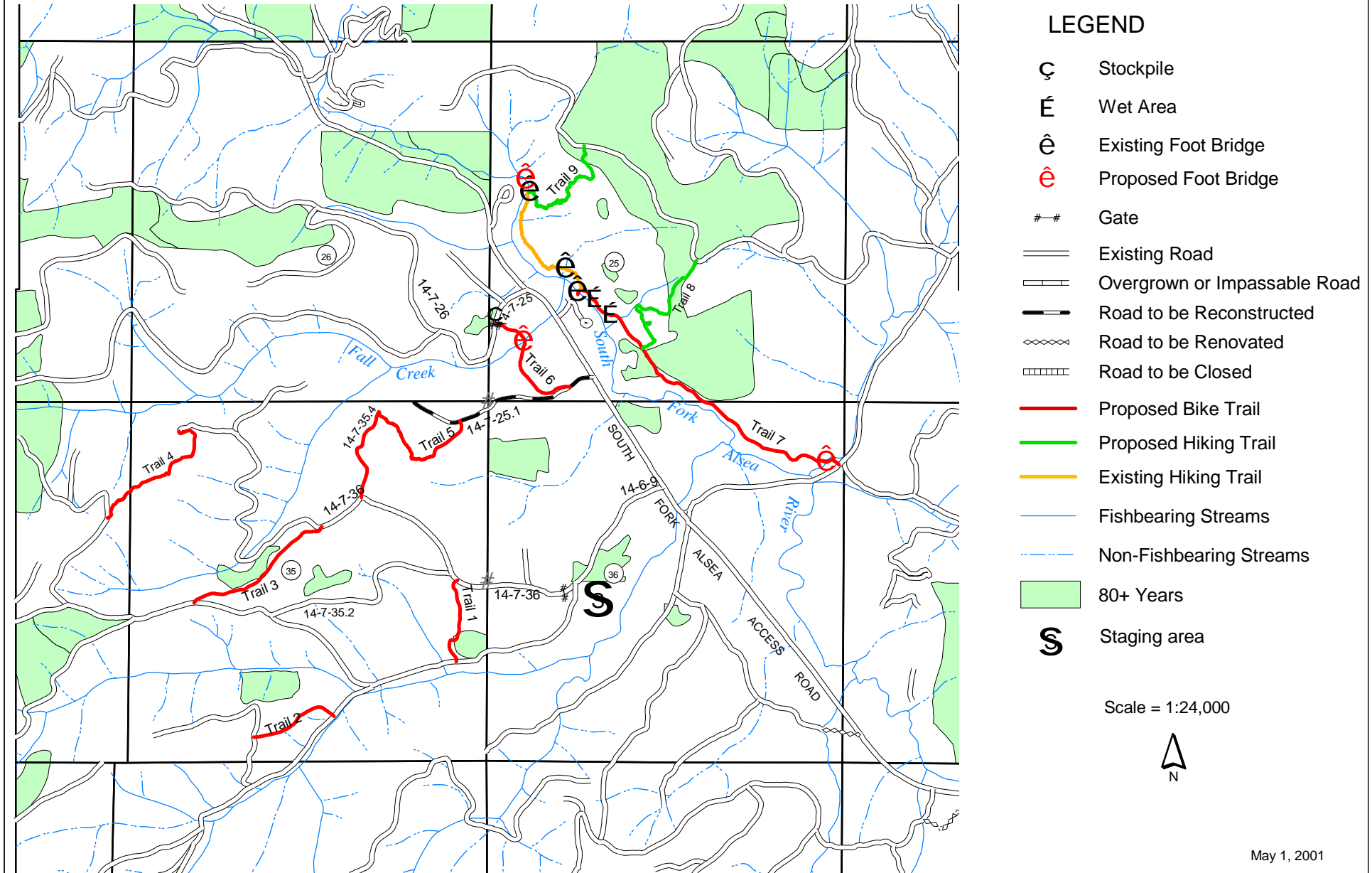
APPENDIX A: PROJECT MAPS

Map 1: Project Plan

Map 2: Project Area Location

United States Department of the Interior - BUREAU OF LAND MANAGEMENT
ALSEA FALLS BIKE TRAIL AND FOOT BRIDGE CONSTRUCTION PROJECT MAP

T. 14 S., R. 7 W., Sections 25, 34, 35, 36 W. M. - SALEM DISTRICT - OREGON



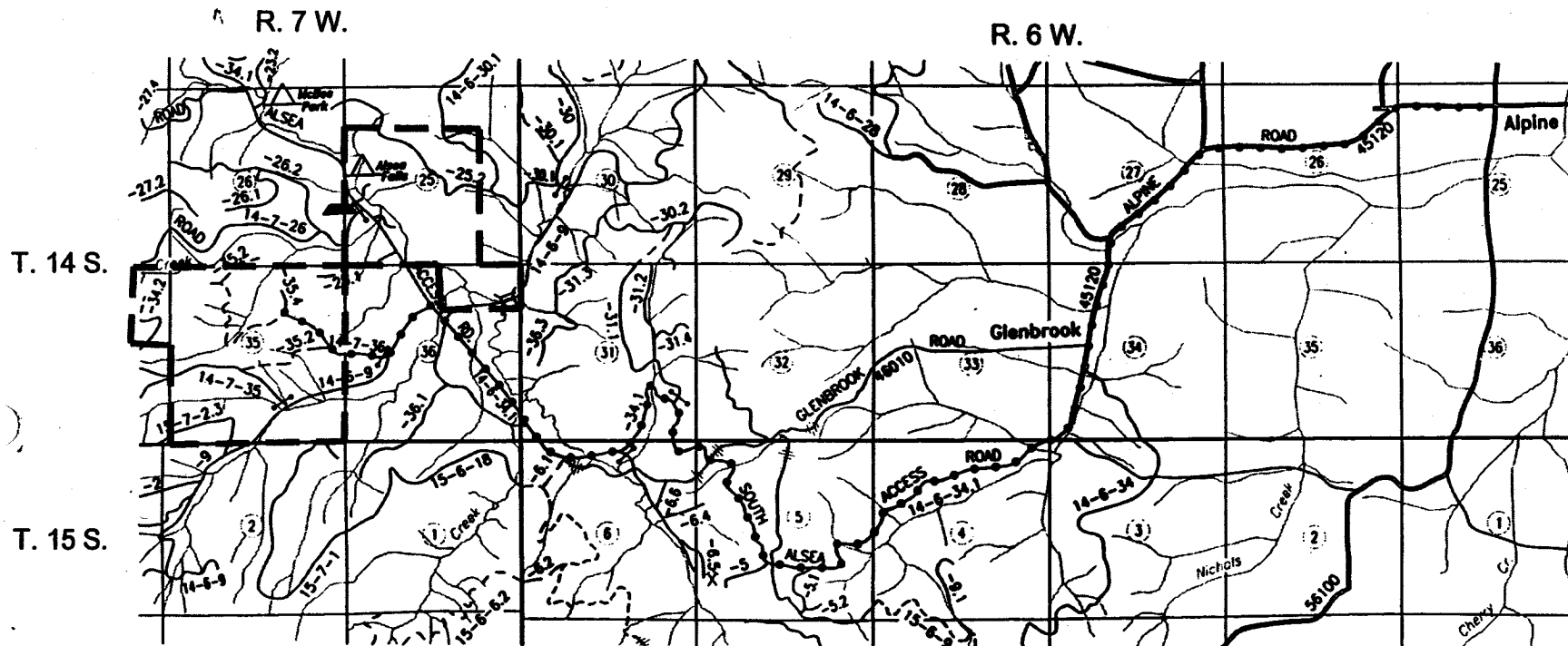
May 1, 2001

United States Department of the Interior
BUREAU OF LAND MANAGEMENT

T. 14 S., R. 7 W., Sections 25, 34, 35, and 36, W.M. - SALEM DISTRICT - OREGON

Alsea Falls Bike Trail Construction and Foot Bridge Installation
Environmental Assessment
Project Location Map

Scale: 1" = 1 mile



Project Location



Access Route

APPENDIX B: ENVIRONMENTAL ELEMENTS REVIEW SUMMARY

The following table summarizes environmental features which the Bureau of Land Management is required by law or policy to consider in all Environmental Documentation (BLM Handbook H-1790-1, Appendix 5: Critical Elements of the Human Environment).

ENVIRONMENTAL FEATURES

Environmental Feature	Affected/Not Affected/May Be Affected	Remarks
Air Quality	Not Affected	
Areas of Critical Environmental Concern	Not Affected	
Cultural, Historic, Paleontological	Not Affected	
Prime or Unique Farm Lands	Not Affected	
Flood Plains	Not Affected	
Native American Religious Concerns	Not Affected	
Threatened, Endangered, or Special Status Plant Species or Habitat	Not Affected	

Threatened, Endangered, or Special Status Animal Species or Habitat	Wildlife: May Be Affected Fish: May Be Affected	All appropriate mitigation has been incorporated into design features. Consultation is completed (see EA p. 27). This project is covered under the Programmatic Biological Assessment dated September 1998. This project would incorporate the project design criteria for trail maintenance and construction established in the Programmatic Biological Opinion dated June 1999 and extended in March 2000 (see EA p. 27).
Hazardous or Solid Wastes	Not Affected	
Drinking or Ground Water Quality	Not Affected	
Wetlands or Riparian Reserves	Affected	See EA p. 18
Invasive, Nonnative Species	Affected	See EA pp. 12,13
Environmental Justice	Not Affected	
Wild and Scenic Rivers	Not Affected	
Wilderness	Not Affected	

COMMON ISSUES REVIEW

Resources	Affected/May Be Affected/Not Affected	Remarks
Special Attention Animal Species and Habitat	Not Affected	No sites were found.
Special Attention Plant Species and Habitat	May Be Affected	All sites found have been protected.
Minerals	Not Affected	
Land Uses	Not Affected	
Soils & Sedimentation	Affected	See Soils section.
Water: DEQ 303(d) Listed Streams Water Temperature Water Quantity	Not affected Not affected Not affected	
Rural Interface Areas	Not affected	

Appendix C to EA# OR080-01-01 ALSEA FALLS BIKE/PEDESTRIAN TRAIL CONSTRUCTION AND FOOT BRIDGE INSTALLATION

ACS Objective	How Project Meets the ACS Objective
1. Maintain and restore distribution, diversity, and complexity of watershed and landscape features to ensure protection of aquatic systems.	The proposed construction and recreational use of trails would not appreciably change existing habitat types, or alter the development of future forest stand conditions. The canopy and understory would remain intact which should keep the microclimate disturbances to a minimum.
2. Maintain and restore spatial connectivity within and between watersheds.	<p>Stream crossings and trail segments within riparian zone habitats would alter such a small amount of area that habitat availability for riparian associated species would not be appreciably diminished. Existing corridors for movement through Riparian Reserves would be negligibly affected within this watershed. Species vulnerable to increased human activities (forest raptors) may alter their patterns of habitat use, but such impacts are likely to be uncommon and very localized such that affects to local populations would be negligible.</p> <p>No stream crossing bridges or culverts would be constructed that would potentially hinder movement of aquatic species, therefore no barriers would be created.</p>
3. Maintain and restore physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.	<p>Channels in the project area appear to be stable and functional. This action is unlikely to alter the current condition of the aquatic system either by affecting it's physical integrity, water quality, sediment regime or in-stream flows.</p> <p>Management activity throughout the project area is not likely to cause any alteration in water flows that could affect channel morphology.</p>

Appendix C to EA# OR080-01-01 ALSEA FALLS BIKE/PEDESTRIAN TRAIL CONSTRUCTION AND FOOT BRIDGE INSTALLATION

<p>4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems.</p>	<p>Water quality necessary to support healthy riparian, aquatic, and wetland ecosystems would be maintained. Trail construction would not occur on steep, unstable slopes where the potential for mass wasting adjacent to stream reaches is high. Therefore, increases in sediment delivery to streams due to mass wasting are unlikely to result from this action. In addition, potential impacts resulting from trail construction and use would be mitigated and, with the implementation of Best Management Practices (BMP's), are unlikely to contribute measurable amounts of sediment to streams. The riparian canopy would be retained therefore maintaining riparian microclimate conditions and protecting streams from increases in temperature. Shading along all the tributaries in the project area is currently adequate, and this project would not alter stream side shading. Forest density and hence shading immediately adjacent to the mainstem South Fork Alsea would be left virtually unaltered under this proposal.</p>
<p>5. Maintain and restore the sediment regime under which system evolved.</p>	<p>This proposal is unlikely to alter stream flow or peak flow events. Trail construction would not occur on steep, unstable slopes where the potential for mass wasting adjacent to stream reaches is high. Therefore, increases in sediment delivery to streams due to mass wasting are unlikely to result from this action. In addition, potential impacts resulting from trail construction and use would be mitigated and, with the implementation of BMP's, are unlikely to contribute measurable amounts of sediment to streams.</p>
<p>6. Maintain and restore instream flows.</p>	<p>Alterations in the capture, infiltration and routing (both surface and subsurface) of precipitation, as a consequence of the removal of duff, limbs and logs would affect less than 2 acres of the forest cover in the 9,500 acre Upper South Fork Alsea watershed. This proposal is unlikely to alter stream flow or peak flow events.</p>

Appendix C to EA# OR080-01-01 ALSEA FALLS BIKE/PEDESTRIAN TRAIL CONSTRUCTION AND FOOT BRIDGE INSTALLATION

<p>7. Maintain and restore the timing, variability and duration of floodplain inundation and water table elevation in meadows and wetlands.</p>	<p>The proposed project would not alter existing patterns of floodplain inundation or water table elevation as it would have no effects on existing flow patterns and stream channel conditions.</p> <p>The minimization of potential disturbances from the proposed project is likely to result in the maintenance of stream channels in their current condition. Some channels in the project area are currently functioning at the low end of the range expected under “reference conditions.” Other channels are functioning normally. In the short term, this proposal is unlikely to alter the current condition of channels in the project area for several reasons; 1) the proposed activities directly in channels, or on streambanks or floodplains would be restricted to the timing of in-stream work (July 1 to August 31; 2) streamflows and sediment delivery are unlikely to be altered; and 3) the stream’s supply of large wood would not be altered.</p>
<p>8. Maintain and restore the species composition and structural diversity of plant communities in riparian zones and wetlands to provide thermal regulation, nutrient filtering, and appropriate rates of bank erosion, channel migration and CWD accumulations.</p>	<p>Structural components of late-seral forests (large trees, multiple canopy layers, large hard snags, heavy accumulations of down wood, and species diversity) would be maintained. Riparian vegetation would be maintained by retaining all standing and downed conifer species in the riparian zone and stream channel and by the installation of a elevated walkway (appendix E) and re-routing the trails from areas of riparian vegetation. Coarse woody debris within the trail construction path, and snags that pose a safety hazard would be retained on site.</p>
<p>9. Maintain and restore habitat to support well distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species</p>	<p>Species linked to Riparian Reserves issues are mostly associated with late-seral forest conditions, which would be maintained and provide existing function of the local Riparian Reserves corridors. Stream crossings and trail segments within riparian zone habitats would alter such a small amount of area that habitat availability for riparian associated species would not be appreciably diminished. Existing corridors for movement through Riparian Reserves would be negligibly affected within this watershed.</p>

CLEARING LIMITS

NOT TO SCALE

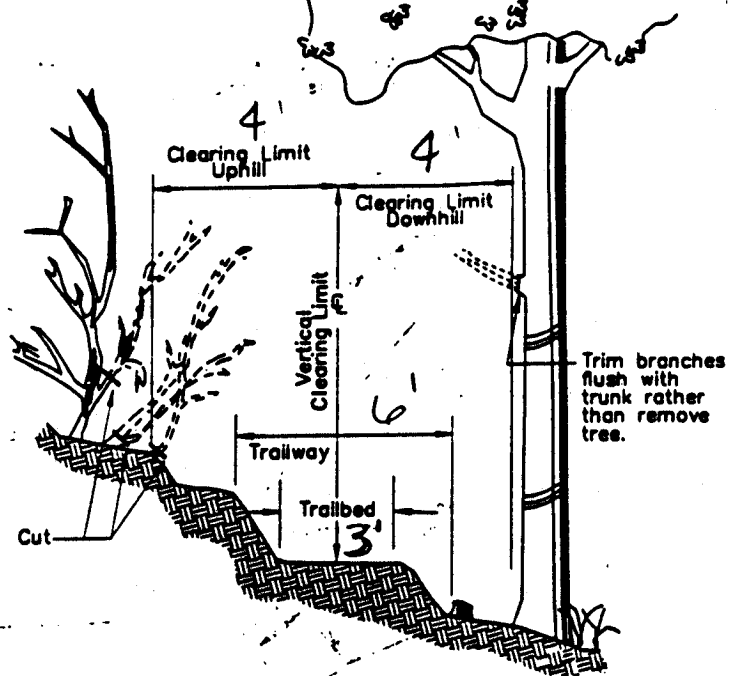
Appendix D
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Clearing Limits (mm)

Location	Uphill	Downhill	Height

Do not remove trees over _____ mm diameter if they are over _____ m from the centerline (both sides).

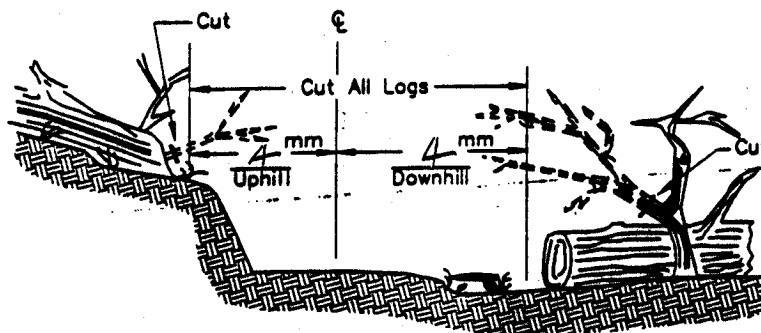
Remove all trees _____ mm or less in diameter if they are within _____ m of centerline (both sides).



Stump Height Requirements* (mm)

Stump Position	Side Slope	Uphill	Downhill
Stumps between the trailway and clearing limits.	Side slope less than or=to 10%	3	3
	Side slope over 10%	6	3
Stumps outside the clearing limits	Side slope less than or=to 10%	—	—
	Side slope over 10%	—	—

*All heights measured on uphill side of stumps.



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ELEVATED BOARDWALK

Appendix D
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